

CLAIMS:

1. A sensor comprising a substrate (1) and at least one resonator, said resonator is comprised of an acoustic reflector (2), a first and a second electrode (3,4), a piezoelectric layer (5), and a sensing layer (6) wherein the first and the second electrode (3, 4) are placed on the same side of the piezoelectric layer (5).
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2. The sensor of claim 1 wherein the first and the second electrode (3, 4) are interdigitated electrodes.
3. The sensor of claim 1 or 2 wherein the sensor comprises a plurality of
10 individually addressable resonators.
4. The sensor of claim 3 wherein the sensing layers (6) of the different resonators comprise different materials.